

# Requirements for installation work on Enectiva projects – automatic data collection from gauges

It is important to follow the instructions bellow while working on Enectiva installation projects.

## General

- If you are replacing a gauge or installing new one, then you have to fill the exchange protocol (which includes description of old and new gauge condition). It is necessary to write down the serial numbers of old and new gauges and M-bus module serial number too.
- After installation of any gauge or after mounting a digital output to the gauge or after installation of central unit you will take photos of the place (please see our Manual of how to take pictures correctly). The photos will be given to us together with information about the project.
- Draw cabel route to the area scheme. We need to know, which way the cabels lead and where the central unit (data concetrators) are. You can draw it simply by hand. We cannot make an invoice without these materials.

## Electrometers

- All outputs and inputs should be marked so we can see which phase they are. Keep in mind that every wire has its specific color.
- In case of indirect measurement all outputs form transformer, that si measuring current, should be marked.
- Be sure your installation pass the periodic inspection.
- In switchboard, there will be described what the electrometer si measuring.

## Water meters

- A watermeter is installed vertically only when it is allowed in specifications given by manufacturer.
- The watermeter is installed horizontally always with its dial facing upwards. It doesn't matter if it isn't visible, since it is readed automatically. The meter has to measure correctly, that is prior.
- After every installation it is necessary to do a pressure test. Till 14<sup>th</sup> day after installation if the water leaks through the seal, you are going to correct your job as a part of a work guarantee.
- It is necessary to install check valves, where it is required.

## Gas meters

- Only a company or person with a valid authorization is allowed to install gas meters (or manipulate with them).
- When uninstalling the present gas meter for a longer period of time, it is necessary to prevent the gas leakage.

- In explosive environment use spark separators and other devices authorized by EX-certification.
- Be sure your installation pass the periodic inspection.
- When installing the devices with a convertor, it is necessary to check, which output from convertor is pulse output of standard volume of gas consumption and connect it.

## Heat meters

- Temperature probes will be placed as it is described in instructions given by manufacturer, so they cannot be ejected spontaneously from a heat sink.
- It is necessary to check the direction of hot water flow and install the calorimeter in the right direction.

## Water meters located in shafts

- Shafts are commonly very wet places, where joints can easily corrode. So for example, we use watertight conjunctions for a cable coupling.
- The wireless transmitters are placed always as close to the cover as it can be. And if it is possible, we mount the transmitters above the surface.
- A clutch that is connecting a cable from the water meter and a cable from the transmitter will be placed as high as possible. It happened many times, that whole shaft has been flooded. So higher the box with the conjunction is, the better for us.

## Central units, data concentrators

- Always install these devices at accessible place, so it can be easily serviced. If possible, place them somewhere, where a ladder or a lifting platform won't be needed.
- If possible, use current switchboards MaR or NN.
- Protection of central units is done at 2A-B level, short-circuit resistance of 10kA.
- If you can not avoid placing the unit on a rooftop, then place it on a shady place, where isn't any threat of overheating in summer and also place it in a watertight box IP68.

## Cabling

- Conjunctions will be realised with WAGO clips in installation boxes.
- Cable routes is going to fulfill the same standard, as it was used in other cable routes in the object. If the other cables are inserted in pipes, then use pipes too. The same thing for a grates. Exceptions will always be confirmed by a command from Enerfis head office after an agreement with a client.
- An ending of cable routes will always be properly marked (e.g. M-Bus Enectiva).
- Information about drawing cable routes to the area scheme are closely specified in the General paragraph.
- We using cable type JySty 1x2x0,6 or JySty 1x2x08x eventually four-wire variants, for M-bus cabling.

Do you have any questions or do you find our instructions incomplete? Please feel free contacting us at [podpora@enectiva.cz](mailto:podpora@enectiva.cz) or call directly +420 222 766 950.